**Amendments to the Claims**:

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**:

Claim 1 (currently amended) A method for quickly and reliably transmitting a byte stream from a sending node to a receiving node in a data communication network, the method comprising:

a) initially transmitting a predetermined number of credits from a receiving node to a sending node, said initially transmitted credits authorizing transmission from said sending node of a first unique range of bytes of a byte stream;

b) transmitting said first unique range of bytes of said byte stream from a buffer disposed at said sending node to said receiving node; ~~and~~

c) transmitting an additional, predetermined number of credits from said receiving node to said sending node when a predetermined event occurs, said additional, predetermined number of credits authorizing transmission of a second unique range of bytes of said byte stream; and

d) releasing at least a portion of said buffer corresponding to said first unique range of bytes upon occurrence of said predetermined event.

Claims 2 - 5 (cancelled)

Claim 6 (currently amended): The method of claim 1, wherein said predetermined event is one from the group of events:

a) ~~a predetermined number~~ at least one of said first unique range of bytes and said second unique range of bytes from said byte stream is received at said receiving node,

b) ~~a predetermined number~~ at least one of said first unique range of bytes and said second unique range of bytes from said byte stream is received at said receiving node and a congestion indicator at said receiver node is less than a predetermined threshold,

c) ~~a predetermined number~~ at least one of said first unique range of bytes and said second unique range of bytes from said byte stream is received at said receiving node and a data error indicator at said receiver node is less than a predetermined threshold,

d) a buffer disposed at said receiving node ~~,~~ and containing ~~said~~ at least one of said first unique range of bytes and said second unique range of bytes ~~transmitted from said sending node to said receiving node,~~ has free space,

e) a buffer disposed at said receiving node ~~,~~ and containing ~~said~~ at least one of said first unique range of bytes and said second unique range of bytes ~~transmitted from said sending node to said receiving node,~~ has free space and a congestion indicator at said receiver node is less than a predetermined threshold, and

f) a buffer disposed at said receiving node ~~,~~ and containing ~~said~~ at least one of said first unique range of bytes and said second unique range of bytes ~~transmitted from said sending node to said receiving node,~~ has free space and a data error indicator at said receiver node is less than a predetermined threshold.

Claim 7 (currently amended): The method of claim 1, wherein the reception of said additional, predetermined number of credits at said ~~receiving~~ sending node indicates that at least a subset of said byte stream was correctly received at said receiving node.

Claim 8 (currently amended): The method of claim 1, wherein said step of transmitting of said additional predetermined number of credits is dependent upon a counter exceeding a predetermined number representative of received bytes at said receiving node, wherein at least one of said initially transmitting step (a) and said transmitting step (c) comprise transmitting a predetermined number of credits from said receiving node to said sending node when said counter is equal to at least a predetermined value and decrementing said counter by said byte size upon transmission of said credits.

Claim 9 (previously presented): The method of claim 1, wherein said credits from said credit transmission of at least one of said initially transmitting step (a) and said transmitting step (c) are reduced or delayed to reflect congestion detection in said data communication network.

Claim 10 (currently amended) The method of claim 1, wherein said transmitting of said first unique range of bytes step (b) is dependent upon a counter exceeding a predetermined number representative of received credits at said sending node, said transmitting step (b) comprises the sub-steps of:

i) transmitting said first unique range of bytes from said sending node to said receiving node when said counter is equal to at least said number first unique range of bytes; and

ii) decrementing said counter by said number said first unique range of bytes upon said transmission thereof ~~of said bytes~~.

Claim 11 (currently amended): The method of claim 1, wherein said bytes transmitted in said ~~byte transmission~~ transmitting step (a) and said transmitting step (c) are in the form of Transmission Control Protocol (TCP) packets, whereby said method is compatible at the application programming interface (API) level with TCP.

Claim 12 (cancelled)

Claim 13 (currently amended): The method of claim 79, the steps further comprising:

d) resetting said ~~established connection~~ data communication network when said transmission of at least one of said negative acknowledgements occurs a predetermined number of times.

Claim 14 (previously presented): The method of claim 1, wherein at least one of said initially transmitting step (a) and said transmitting step (c) of said predetermined number of credits occurs by piggybacking existing traffic with said credits from said receiving node to said sending node.

Claim 15 (previously presented): The method of claim 1, wherein said predetermined number of credits in at least one of said initially transmitting step (a) and said credit transmission step (c) are not retransmitted if they are lost.

Claim 16 (currently amended): The method of claim 79, wherein said predetermined number of negative acknowledgements is transmitted ~~at~~ in response to a predetermined ~~events~~ event.

Claim 17 (previously presented): The method of claim 79, wherein said at least one lost or corrupted byte is detected by means of error detection hardware only.

Claim 18 (currently amended): The method of claim 79, wherein said at least one lost or corrupted byte is detected only ~~once~~ by software means for detecting errors ~~error detection means~~.

Claim 19 (currently amended): A method for quickly and reliably transmitting a byte stream from a sending node having credits indicating a predetermined range of bytes from said byte stream to be transmitted, and an established connection to a receiving node in a communication network having a plurality of nodes and with a plurality of interconnectable paths, wherein said predetermined range of bytes are formed into a plurality of data packets in accordance with a predetermined protocol, the method comprising:

a) providing a predetermined identifier associated with data packets;

b) if said predetermined identifier indicates a credit and negative acknowledgement-based first transport system, transmitting a predetermined range of bytes of a byte stream from a sending node to a receiving node, corresponding to a range of bytes specified in credits present at said sending node;

c) transmitting a predetermined number of credits from said receiving node to said sending node when a predetermined ~~even~~ event occurs, said credits specifying a second unique range of bytes to be transmitted; and

d) transmitting a predetermined number of negative acknowledgements from said receiving node to said sending node, when one of said transmitted bytes is lost or corrupted.

Claim 20 (previously presented): The method of claim 19, the steps further comprising:

e) if said predetermined identifier indicates a transport system that is not exclusively credit and negative acknowledgement based, processing said data stream by a second transport system independent of credit and negative acknowledgements, whereby compatibility at the application programming interface (API) level of said first transport system and said second transport system is maintained.

Claim 21 (previously presented): The method of claim 19, the steps further comprising:

e) providing a first packet filter for filtering data packets at a sending node; and

f) providing a second packet filter for filtering data packets at a receiving node, so that said predetermined identifier indicates a credit and negative acknowledgement transport system dependent on said first and second packet filters.

Claim 22 (previously presented): The method of claim 19, the steps further comprising:

e) retransmitting at least once, from said sending node to said receiving node, said at least one of said lost or corrupted bytes corresponding to said predetermined number of negative acknowledgments received at said sending node.

Claim 23 (previously presented): The method of claim 19, wherein said step (c) of transmitting said predetermined number of credits from said receiving node to said sending node occurs before said transmitting predetermined number of bytes of said byte stream step (b).

Claim 24 (previously presented): The method of claim 23, wherein said transmitting of said predetermined number of credits step (c) occurs during a connection establishment of said sending node and said receiving node.

Claim 25 (previously presented): The method of claim 23, wherein said transmitting of said predetermined number of credits step (c) occurs after a connection establishment of said sending node and said receiving node.

Claim 26 (original): The method of claim 19, wherein said predetermined event is one from the group of a) a predetermined number of bytes from said byte stream is received at said receiving node, b) a predetermined number of bytes from said byte stream is received at said receiving node and a congestion indicator at said receiver node is less than a predetermined threshold, c) a predetermined number of bytes from said byte stream is received at said receiving node and a data error indicator at said receiver node is less than a predetermined threshold, d) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space, e) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a congestion indicator at said receiver node is less than a predetermined threshold, and f) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a data error indicator at said receiver node is less than a predetermined threshold.

Claim 27 (original): The method of claim 19, wherein the reception of said credits at said receiving node indicates that at least a subset of said byte stream was correctly received at said receiving node.

Claim 28 (previously presented): The method of claim 19, wherein said transmitting of said predetermined number of credits step (c) is dependent upon a counter exceeding a predetermined number representative of received bytes at said receiving node, said transmitting step (c) comprising the sub-steps of:

i) transmitting a predetermined number of credits from said receiving node to said sending node when said counter is equal to at least a predetermined value; and

ii) decrementing said counter by said byte size upon transmission of said credits.

Claim 29 (previously presented): The method of claim 19, wherein said credits from said credit transmission step (c) are reduced or delayed to reflect congestion detection in said data communication network.

Claim 30 (previously presented) The method of claim 19, wherein said transmitting of said predetermined number of bytes step (b) is dependent upon a counter exceeding a predetermined number representative of received credits at said sending node, said transmitting step (b) including the sub-steps of:

i) transmitting said bytes from said sending node to said receiving node when said counter is equal to at least said number of bytes; and

ii) decrementing said counter by said number of bytes upon said transmission of said bytes.

Claim 31 (previously presented): The method of claim 19, wherein said bytes transmitted in said byte transmission step (b) are in the form of Transmission Control Protocol (TCP) packets, whereby said method is compatible at the application programming interface (API) level with TCP.

Claim 32 (original): The method of claim 19, wherein the established connection between said sending node and said receiving node is established using the standard 3-way handshake of Transmission Control Protocol (TCP).

Claim 33 (previously presented): The method of claim 19, the steps further comprising:

e) resetting said established connection when said transmission of at least one of said negative acknowledgements occurs a predetermined number of times.

Claim 34 (previously presented): The method of claim 19, wherein said transmitting of said predetermined number of credits step (c) occurs by piggybacking said credits with existing traffic from said receiving node to said sending node.

Claim 35 (original): The method of claim 19, wherein said credits in said credit transmission step are not retransmitted if they are lost.

Claim 36 (original) The method of claim 19, wherein said predetermined number of negative acknowledgements is transmitted at predetermined events.

Claim 37 (original) The method of claim 19, wherein said at least one corrupted byte is detected by means of error detection hardware only.

Claim 38 (original): The method of claim 19, wherein said at least one corrupted byte is detected only once by software error detection means.

Claim 39 (previously presented): A system for quickly and reliably transmitting a byte stream from a sending node to a receiving node in a data communication network, comprising:

a) means for transmitting a predetermined first range of bytes of a byte stream from a sending node to a receiving node, said predetermined first range of bytes corresponding to a first range of bytes specified in credits present at said sending node;

b) means for transmitting a second predetermined number of credits corresponding to a second range of bytes of said byte stream from said receiving node to said sending node when a predetermined event occurs; and

c) means for transmitting a predetermined number of negative acknowledgements from said receiving node to said sending node, when at least one transmitted byte is lost or corrupted.

Claim 40 (previously presented): The system of claim 39, further comprising:

d) means for retransmitting at least once, from said sending node to said receiving node, said at least one lost or corrupted byte corresponding to said predetermined number of negative acknowledgments received at said sending node.

Claim 41 (previously presented): The system of claim 39, wherein said means for transmitting said predetermined number of credits from said receiving node to said sending node transmits said predetermined number of credits before the transmission of said predetermined number of bytes of said byte stream.

Claim 42 (previously presented): The system of claim 41, wherein said transmission of said predetermined number of credits occurs during a connection establishment of said sending node and said receiving node.

Claim 43 (previously presented): The system of claim 41, wherein said transmission of said predetermined number of credits occurs after a connection establishment of said sending node and said receiving node.

Claim 44 (original): The system of claim 39, wherein said predetermined event is one from the group of a) a predetermined number of bytes from said byte stream is received at said receiving node, b) a predetermined number of bytes from said byte stream is received at said receiving node and a congestion indicator at said receiver node is less than a predetermined threshold, c) a predetermined number of bytes from said byte stream is received at said receiving node and a data error indicator at said receiver node is less than a predetermined threshold, d) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space, e) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a congestion indicator at said receiver node is less than a predetermined threshold, and f) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a data error indicator at said receiver node is less than a predetermined threshold.

Claim 45 (original): The system of claim 39, wherein the reception of said credits at said receiving node indicates that at least a subset of said byte stream was correctly received at said receiving node.

Claim 46 (previously presented) The system of claim 39, wherein said means for transmitting of said predetermined number of credits is dependent upon a counter exceeding a predetermined number representative of received bytes at said receiving node, said means for transmitting comprising:

i) means for transmitting a predetermined number of credits from said receiving node to said sending node when said counter is equal to at least a predetermined value; and

ii) means for decrementing said counter by said byte size upon transmission of said credits.

Claim 47 (original): The system of claim 39, wherein said credits from said means for credit transmission are reduced or delayed to reflect congestion detection in an established connection.

Claim 48 (previously presented): The system of claim 39, wherein said means for transmitting of said predetermined number of bytes is dependent upon a counter exceeding a predetermined number representative of received credits at said sending node, said means for transmitting comprising:

i) means for transmitting said bytes from said sending node to said receiving node when said counter is equal to at least said number of bytes; and

ii) means for decrementing said counter by said number of bytes upon said transmission of said bytes.

Claim 49 (previously presented): The system of claim 39, wherein said bytes transmitted by said byte transmission means are in the form of Transmission Control Protocol (TCP) packets, whereby said system is compatible at the application programming interface (API) level of TCP.

Claim 50 (original): The system of claim 39, wherein the established connection between said sending node and said receiving node is established using the standard 3-way handshake of Transmission Control Protocol (TCP).

Claims 51 (previously presented): The system of claim 39, further comprising:

d) means for resetting said established connection when said transmission of at least one of said negative acknowledgements occurs a predetermined number of times.

Claim 52 (previously presented): The system of claim 39, wherein said means for transmitting of said predetermined number of credits is configured and adapted to piggyback said credits with existing traffic from said receiving node to said sending node.

Claim 53 (original): The system of claim 39, wherein said credits in said credit transmission means are not retransmitted if they are lost.

Claim 54 (original): The system of claim 39, wherein said predetermined number of negative acknowledgements is transmitted at predetermined events.

Claim 55 (original): The system of claim 39, wherein said at least one corrupted byte is detected by means of error detection hardware only.

Claim 56 (original): The system of claim 39, wherein said at least one corrupted byte is detected only once by software error detection means.

Claim 57 (previously presented): A system for quickly and reliably transmitting a byte stream from a sending node having credits indicating a predetermined number of bytes from said byte stream to be transmitted and an established connection to a receiving node in a communication network having a plurality of nodes and with a plurality of interconnectable paths, and wherein said predetermined range of bytes are formed into a plurality of data packets in accordance with a predetermined protocol, the system comprising:

a) a predetermined identifier associated with data packets;

b) means for transmitting a predetermined number of bytes of a byte stream from a sending node to a receiving node, corresponding to the number of credits present at said sending node, if said predetermined identifier indicates a credit and negative acknowledgement transport system;

c) means for transmitting a predetermined number of credits from said receiving node to said sending node when a predetermined even occurs; and

d) means for transmitting a predetermined number of negative acknowledgements from said receiving node to said sending node, when at least one transmitted byte is lost or corrupted.

Claim 58 (previously presented): The system of claim 57, further comprising:

e) means for processing said data stream by a transport system independent of credit and negative acknowledgements, if said predetermined identifier indicates a transport system that is not exclusively credit and negative acknowledgement based,

whereby compatibility at the application programming level of a protocol is maintained.

Claim 59 (previously presented): The system of claim 57, further comprising:

e) a first packet filter for filtering data packets at a sending node; and

f) a second packet filter for filtering data packets at a receiving node,

so that said predetermined identifier indicates a credit and negative acknowledgement transport system dependent on said first and second packet filters.

Claim 60 (previously presented): The system of claim 57, further comprising:

) means for retransmitting at least once, from said sending node to said receiving node, said lost or corrupted bytes corresponding to said predetermined number of negative acknowledgments received at said sending node.

Claim 61 (previously presented): The system of claim 57, further comprising:

e) means for transmitting said predetermined number of credits from said receiving node to said sending node occurs before the transmission of said predetermined number of bytes of said byte stream.

Claim 62 (original): The system of claim 61, wherein said means for transmitting of said predetermined number of credits occurs during a connection establishment of said sending node and said receiving node.

Claim 63 (original): The system of claim 61, wherein said means for transmitting of said predetermined number of credits occurs after a connection establishment of said sending node and said receiving node.

Claim 64 (original): The system of claim 57, wherein said predetermined event is one from the group of a) a predetermined number of bytes from said byte stream is received at said receiving node, b) a predetermined number of bytes from said byte stream is received at said receiving node and a congestion indicator at said receiver node is less than a predetermined threshold, c) a predetermined number of bytes from said byte stream is received at said receiving node and a data error indicator at said receiver node is less than a predetermined threshold, d) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space, e) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a congestion indicator at said receiver node is less than a predetermined threshold, and f) a buffer at said receiving node, containing said bytes transmitted from said sending node to said receiving node, has free space and a data error indicator at said receiver node is less than a predetermined threshold.

Claim 65 (original): The system of claim 57, wherein the reception of said credits at said receiving node indicates that at least a subset of said byte stream was correctly received at said receiving node.

Claim 66 (previously presented): The system of claim 57, wherein said means for transmitting of said predetermined number of credits is dependent upon a counter exceeding a predetermined number representative of received bytes at said receiving node, said transmitting means comprising:

i) means for transmitting a predetermined number of credits from said receiving node to said sending node when said counter is equal to at least a predetermined value; and

ii) means for decrementing said counter by said byte size upon transmission of said credits.

Claim 67 (original): The system of claim 57, wherein said credits from said means for credit transmission are reduced or delayed to reflect congestion detection in an established connection.

Claim 68 (previously presented): The system of claim 57, wherein said means for transmitting of said predetermined number of bytes is dependent upon a counter exceeding a predetermined number representative of received credits at said sending node, said transmitting means comprising:

e) means for transmitting said bytes from said sending node to said receiving node when said counter is equal to at least said number of bytes; and

f) means for decrementing said counter by said number of bytes upon said transmission of said bytes.

Claim 69 (original): The system of claim 57, wherein said bytes transmitted by said byte transmission means are in the form of Transmission Control Protocol (TCP) packets, whereby said system is compatible at the application programming level of TCP.

Claim 70 (original): The system of claim 57, wherein the established connection between said sending node and said receiving node is established using the standard 3-way handshake of Transmission Control Protocol (TCP).

Claim 71 (previously presented): The system of claim 57, further comprising:

e) means for resetting said established connection when said transmission of at least one of said negative acknowledgements occurs a predetermined number of times.

Claim 72 (original): The system of claim 57, wherein said means for transmitting of said predetermined number of credits occurs by piggybacking existing traffic with said credits from said receiving node to said sending node.

Claim 73 (original): The system of claim 57, wherein said credits in said credit transmission means are not retransmitted if they are lost.

Claim 74 (original): The system of claim 57, wherein said predetermined number of negative acknowledgements is transmitted at predetermined events.

Claim 75 (original): The system of claim 57, wherein said at least one corrupted byte is detected by means of error detection hardware only.

Claim 76 (original): The system of claim 57, wherein said at least one corrupted byte is detected only once by software error detection means.

Claim 77 (previously presented): The method for quickly and reliably transmitting a byte stream as recited in claim 1, wherein said second unique range of bytes is contiguous to said first unique range of bytes.

Claim 78 (currently amended): The method for quickly and reliably transmitting a byte stream as recited in claim 77, the steps further comprising:

d) at said sending node, upon receipt of said credit authorizing said second unique range of bytes, when said second unique range of bytes is non-contiguous with a first previous unique range of bytes, sending ~~intervening~~ bytes of said byte stream intermediate said previous first unique range of bytes and said second unique range of bytes as though credits specifically authorizing sending thereof were explicitly received at said sending node.

Claim 79 (currently amended): The method for quickly and reliably transmitting a byte stream as recited in claim 78, the steps further comprising:

e) when at least one transmitted byte is lost or corrupted, transmitting from said receiving node to said sending node a ~~predetermined number of~~ negative ~~acknowledgements (NAKs)~~ acknowledgement (NAK) identifying said at least one lost or corrupted byte ~~from said receiving node to said sending node, when at least one transmitted byte is lost or corrupted~~.

Claim 80 (currently amended): The method for quickly and reliably transmitting a byte stream as recited in claim 79, the steps further comprising:

f) upon receipt of said NAK at said sending node, retransmitting at least once, from said sending node to said receiving node, only said at least one lost or corrupted byte identified thereby ~~corresponding to said negative acknowledgment~~.

Claim 81 (previously presented): The method for quickly and reliably transmitting a byte stream as recited in claim 1, the steps further comprising:

f) upon receipt of said predetermined number of credits authorizing transmission of at least one of said first unique range of bytes, and said second unique range of bytes, removing a predetermined number of previously authorized and transmitted bytes from a buffer at said means for transmitting.